

Abstracts

247

published algorithm for the SF-36 generic instrument allowed the calculation of utility scores for quality of life suitable for calculating QALYs. Standard statistical techniques, including multiple imputation approaches to handle missing data, were employed to address missing data issues allowing the estimation of cumulative costs and QALYs over the three year study period. **RESULTS:** In the base case analysis we estimated the incremental costs of FP versus placebo to be GBP929 (95% confidence interval (CI): GBP633 to 1220) with an additional effect of 0.14 QALYs (CI: 0.07 to 0.20). This generates a cost-effectiveness estimate for the within-trial period of GBP6830 per QALY gained (CI: GBP3960 to 13,300/QALY gained) which includes uncertainty due to the imputation process. An alternative imputation approach did not materially affect this estimate. **CONCLUSIONS:** Previous analyses of the ISOLDE study showed significant improvement on disease specific health status measures and a trend towards a survival advantage for treatment with FP. This analysis shows that joint considerations of quality of life and survival result in a substantial increase in QALYs in favor of FP. Based on these data, FP appears cost-effective.

RS4

PRESCRIBING PATTERNS IN AMBULATORY CARE CENTERS FOR TREATMENT OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD)

Mahajan S¹, Suh DC², Valiyeva E², Lau H³

¹Duke Clinical Research Institute, Durham, NC, USA; ²Rutgers University, Piscataway, NJ, USA; ³Novartis Pharmaceuticals Corporation, East Hanover, NJ, USA

Chronic obstructive pulmonary disease (COPD) is primarily a disease of the elderly with increasing worldwide morbidity and mortality. Goals of treatment are to relieve symptoms, reduce airflow obstruction, and improve functioning. Although current treatment strategies and guidelines for long-term COPD management recognize bronchodilators as first-line therapy for all patients, inhaled corticosteroids are prescribed for some patients. **OBJECTIVE:** To characterize COPD medication prescribing patterns among visits of patients ≥ 65 y across US ambulatory care centers. **METHODS:** Data from the 2002 National Ambulatory Medical Care Survey and the National Hospital Ambulatory Medical Care Survey gathered from physician offices, hospital outpatient, and emergency departments were analyzed for patients ≥ 65 y. COPD visits were identified by primary diagnoses of bronchitis, chronic bronchitis, emphysema, or chronic airway obstruction. Patients with coexisting asthma were excluded. Sample data were weighted to provide national estimates. **RESULTS:** In 2002, COPD accounted for 7.7 million ambulatory care visits among patients ≥ 65 y. Of these visits, 54.6% were by females and 93.0% were by white patients. COPD medications were prescribed at 38.7% of visits with an average of 1.8 COPD medications prescribed per visit. Bronchodilators, alone or in combination, were prescribed at 2.0 million visits, representing 26.5% of visits. Prescribed bronchodilators were short-acting beta-agonists (16.4%), anticholinergics (11.8%), methylxanthines (7.5%) and long-acting beta-agonists (4.8%). Inhaled corticosteroids, alone or in combination, were prescribed at 13.4% of visits. The most commonly prescribed COPD medication combination was short-acting beta-agonists with anticholinergics (6.9%). **CONCLUSION:** Ambulatory care center prescribing patterns suggest that COPD medications may be under-prescribed in elderly patients. Bronchodilators appear to be the most common COPD-specific treatment. The frequency with which short-acting beta-agonists and anticholinergics were prescribed concurrently in

this dataset may indicate a deficiency in acceptable therapies that provide sufficient bronchoconstriction relief. Further research is needed to assess optimization of drug management for elderly COPD patients.

Podium Session III

Cardiovascular I

CVI

DISCRETE EVENT SIMULATION TO ESTIMATE COST-BENEFIT OF PREVENTING SUDDEN CARDIAC DEATHS WITH AN IMPLANTABLE CARDIOVERTER DEFIBRILLATOR (ICD) VS. AMIODARONE IN FRANCE

Deniz HB, Caro JJ, Ward AJ

Caro Research, Concord, MA, USA

OBJECTIVE: Until recently, primary prevention of sudden cardiac death depended on anti-arrhythmic drugs. The SCD-HeFT Trial confirmed the efficacy of ICD, as all-cause mortality was decreased 23% versus placebo. Estimating lives saved and economic impact of primary prevention of sudden cardiac death with an ICD versus amiodarone in France was the object of this study. **METHODS:** A discrete event simulation was developed to estimate effects over three years. Identical patients received either device or amiodarone. Post-implantation complications (lead and device-related) or toxicity from amiodarone could arise. Model parameters and risk functions were developed based on SCD-HeFT data, assuming life-threatening arrhythmia rates and other death are not differential. Probability of death given arrhythmia was 90% with amiodarone, 47% with ICD. To avoid ageism inherent in QALYs, the economic value society places on a life (5,697,127€) was derived from a meta-analysis and used in cost-benefit analyses. While estimates of the value of life vary from country to country, this value reflects a recent average for European countries. Costs are reported in 2004 € and discounted at 3%. In total, 100 replications of 1000 identical twin pairs were run. Sensitivity analyses were performed for key input parameters. **RESULTS:** ICD use in 1000 patients was predicted to prevent 62 premature deaths over three years. Total additional costs accrued were 20,121€ per patient. The cost/benefit ratio was 0.06 which means for every 1€ gained, 0.06€ has to be invested. In 55% of the replications ICD dominates Amiodarone. Investment in ICD is worthwhile whenever society values a life at more than 325,000€. **CONCLUSION:** ICDs increase immediate costs but their use is consistent with the value of life estimated in Western societies.

CV2

LIPID LEVELS AND NCEP ATP-III LDL-CHOLESTEROL GOAL ATTAINMENT IN PATIENTS NEWLY-INITIATED ON ROSUVASTATIN OR ATORVASTATIN

Bullano MF¹, Kamat SA¹, Williams SA², Wertz DA¹, Cziraky MJ¹, Willey VJ¹

¹HealthCore, Inc, Wilmington, DE, USA; ²AstraZeneca, Wilmington, DE, USA

OBJECTIVE: To compare effectiveness of rosuvastatin to atorvastatin on lipid levels (LDL-C, HDL-C, triglycerides, total cholesterol) and LDL-C goal attainment. **METHODS:** Patients newly-initiated on rosuvastatin or atorvastatin between August 1, 2003 and June 30, 2004 were identified from a West Coast health plan's claims data for this retrospective, longitudinal cohort study. Patients were excluded if they had any dyslipidemic therapy 12-months preceding their initial statin fill. Propensity score matching on baseline characteristics was used to minimize